Abstract: Does Industry Funding Mean More Publications for Subspecialty Academic Plastic Surgeons?

METHODS: 5 year prospective study, (1/1//2012-12/2016). We informed patients that they should not smoke for 4 weeks before and 6 weeks after their surgery date. Each patient consented to study and allowed their urine to be tested the day of surgery. The patients were encouraged to stop all nicotine use, but if necessary, non-smoked delivery systems (ie transcutaneous patch, chewing gum) would be tolerated. The urine cotinine level was measured in patients undergoing major flap surgery or having general anesthesia. Patients were followed for 6 weeks to monitor for post-operative complications. Post-operative complications included any unplanned outcome requiring medical attention including but not restricted to infections, wound healing problems, unanticipated return to the operating room, etc. We then divided the patients into four groups: non-nicotine users (in the past year), smokers with negative urine test, smokers with positive urine test and non-smoked nicotine users.

RESULTS: A total of 340 patients were tested. As expected non-nicotine users (n=264), had the lowest rate of complications at 18% (48). Tobacco smokers that tested positive (21) had the highest complication rate at 28.6% (6), while those testing negative (41) had rate of 19.5% (8) similar to non-smokers. Of note, patients using non-smoked nicotine source (14), developed the highest rate of complications 42.9% (6). Analysis of variance test, p-value of 0.26.

CONCLUSION: There is evidence that even when administered through non-smoked methods nicotine does increase the risk of post-operative complications. The increased complication rate in non-smoked nicotine users may be related to higher nicotine blood levels, as it is possible that patches, chewing gum and vaporized usage encourages greater consumption. Given the increasing usage of non-smoked nicotine sources and the perception that the product offers a safe alternative to traditional tobacco use, further studies should be undertaken to better understand clinical implications of usage in aesthetic and plastic surgery. A larger study size could allow for data to reach statistically significant level.

Reference Citations:

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Does Industry Funding Mean More Publications for Subspecialty Academic Plastic Surgeons?

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INTRODUCTION: Conflict of interest among physicians in the context of private industry funding led to the introduction of the Physician Payments Sunshine Act in 2010.[1,2] This study examined whether private industry funding correlated with scholarly productivity in the respective subspecialties of plastic surgery as well as the wider academic plastic surgery community.

METHODS: Full-time plastic surgeons and their academic attributes were identified via institutional websites. Fellowship trained individuals were segregated into subspecialties of microsurgery, craniofacial surgery, hand surgery, aesthetics surgery and burns surgery. The Center for Medicare and Medicaid Services (CMS) Open Payment database was used to extract industry funding. Each individual's bibliometric data were then collected through Scopus to determine the correlation between selected surgeon characteristics, academic productivity, and industry funding.

RESULTS: Nine hundred and thirty-five academic plastic surgeons were identified with 532 having defined subspecialty training. Academic bibliometrics among subspecialty surgeons were comparable among the 5 groups with aesthetics and craniofacial surgeons displaying a preponderance of attaining more industry funding (p=0.043) and career publications respectively, with the latter not attaining statistical significance (p=0.12). Overall, research-specific funding (p=0.014) and higher funding amounts (p<0.0001) correlated with higher h-indices in tandem with higher academic rank. A funding level of $2,000 appeared to be the approximate cutoff above which scholastic productivity became apparent.

CONCLUSION: Our study demonstrated in detail the intimate association between industry funding and academic bibliometrics in academic plastic surgery of every subspecialty. Even at modest amounts, industry support, especially when research-designated, positively influenced research and therefore academic output.

Reference Citations:

1. Ahmed R, Bae S, Hicks CW, et al. Here Comes the Sunshine: Industry's Payments to Cardiothoracic Surgeons. *Ann Thorac Surg.* Feb 2017;103(2):567–572.

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Saw It Coming: The Correlation Between Poor Performance on the Plastic Surgery in Service Exam and Failure on the American Board Written Exam

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INTRODUCTION: Conceived as a self-evaluation examination for plastic surgery residents, the Plastic Surgery In-Service Training Exam (PSITE) has been administered for 45 years. It is used in residency programs to assess educational progress and predict readiness to pass the American Board of Plastic Surgery (ABPS) Written Exam ("written exam") (WE).

No prior data exists to demonstrate the correlation between performance on the PSITE and performance on the written board exam (WE). We worked with the ABPS and the ASPS to determine if any such correlation exists.

METHODS: Data from the 2008–2015 PSITE was gathered by the National Board of Medical Examiners (NBME). Data included the type of training program (independent or integrated), chronologic year in training at the time of the exam, total raw exam score and scaled percentile performance compared to peers. Demographic data was excluded (age of examinee, gender, geography). 5575 individual test scores were identified.

Parallel data was then gathered from the American Board of Plastic Surgery regarding individuals that failed the WE. 260 WE failures were identified, and 117 WE failures had prior PSITE data available. Excluded were WE failures that graduated from training in advance of 2008 or were foreign medical graduates not taking the PSITE.

RESULTS: A logistic regression was performed to determine if percentile score rank was associated with pass/fail on the WE.

Individuals that failed the WB performed at < 19% on the PSITE when compared to their peers (p<0.001)

There was a significant difference in the percentage of individuals who failed the WE with regard to program type (p<0.001), with a higher failure rate in Independent program graduates (8.8%) vs. Integrated program graduates (2.7%). Risk analysis found that those in an independent program were 4 times more likely to fail than those in an integrated program.

For individuals failing the WE, future performance was varied. 80% succeeded on the second attempt. A subset of examinees failed the WE multiple times.

CONCLUSION: Those that failed the WE performed well below their peers on the PSITE. Residents scoring at or below the 19%ile when compared to their peers are at risk of failing the WE. Independent graduates were 4 times more likely to fail the WE than those in an Integrated program.